

SOV/97-58-10-15/17

AUTHORS: Vasil'yev, A.P. and Bulgakov, V.S. (Candidates of Technical Sciences), and Matkov, N.G. (Engineer)

TITLE: Injecting of Hollows in Precast Prestressed Reinforced Concrete Constructions (In'yektsiya kanalov v predvaritel'no napryazhennykh konstruktsiyakh)

PERIODICAL: Beton i zhelezobeton, 1958, Nr 10, pp 396-397 (USSR)

ABSTRACT: Tests were carried out in the Laboratory for Precast-Monolithic Reinforced Concrete of the Institute for Concrete and Reinforced Concrete (Laboratoriya stornogo i sborno-monolitnogo zhelezobetona Instituta betona i zhelezobetona) ASIA SSSR on the injection of hollows of precast prestressed reinforced concrete constructions with cement and cement-sand grouts. The proper grouting of hollows has a considerable influence on the construction, otherwise corrosion of reinforcement is likely to occur, especially in the case of batch reinforcement (5 mm diameter) made from high-tensile steel. Also longitudinal cracks are likely to appear during freezing of the oozing out water). To achieve proper injecting of hollows the right composition of grout and correct mixing are necessary. Fig 1 shows a

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Injecting of Hollows in Precast Prestressed Reinforced Concrete
Constructions

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special machine for the investigation of injection of hollows in prestressed constructions. Tests for compression, strength, hydration and shrinkage were carried out on hollows 30 m long filled in with 'pleksiglass' and concrete with inside batches of reinforcement. On the basis of these experiments it is recommended to use the following grouts (by weight):
1 : 0.35 and 1 : 0.4 (portland cement + water);
1 : 0.35 + plastifying additive (portland cement + water + 0.15% by weight of cement of residual distillate of sulphate-alcohol, or 0.1% soapnaphtha); 1 : 0.25 : 0.45 (portland cement + ground sand or sand with grain up to 0.5 mm + water). These grouts have satisfactory "mobility", minimal hydration, small shrinkage, strength of not less than 200 kg/cm² after 7 days, satisfactory frost-resistance, and are suitable for injection into hollows 30 m or more long. The addition of plasticator makes the injection of grout much easier, and therefore

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Injecting of Hollows in Precast Prestressed Reinforced Concrete
Constructions

it is possible to reduce the pressure during injection.
Fig 2 shows cross-section of grouted hollow with
properly filled void.
There are 2 figures.

Card 3/3

BERDICHEVSKIY, G.I., kand.tekhn.nauk; DMITRIYEV, S.A., kand.tekhn.nauk;
 MIKHAYLOV, K.V., kand.tekhn.nauk; GVOZDEV, A.A., prof., doktor
 tekhn.nauk; MIKHAYLOV, V.V., prof., doktor tekhn.nauk; BULGAKOV,
 V.S., kand.tekhn.nauk; VASIL'YEV, A.P., kand.tekhn.nauk; YEVGEN'YEV,
 I.Ye., kand.tekhn.nauk; MULIN, N.M., kand.tekhn.nauk; SVETOV, A.A.,
 kand.tekhn.nauk; FRENKEL', I.M., kand.tekhn.nauk; BELOBROV, I.K.,
 inzh.; MATKOV, N.G., inzh.; MITNIK, G.S., inzh.; SKLYAR, B.L., inzh.;
 SHILOV, Ye.V., inzh.; MASENKO, I.D., inzh.; NIZHNICHENKO, I.P., inzh.;
 FILIPPOVA, G.P., inzh.; NIZERUYUK, B.N., kand.tekhn.nauk; SHEYNFEL'D,
 N.M., kand.tekhn.nauk; BALAT'YEV, P.K., kand.tekhn.nauk; BARBARASH,
 I.P., kand.tekhn.nauk; MITGARTS, L.B., kand.tekhn.nauk; SHIFRIN, M.A.,
 kand.tekhn.nauk; PETROVA, V.V., red.izd-va; TEMKINA, Ye.L., tekhn.red.

[Temporary instruction on the technology of making prestressed re-
 inforced concrete construction elements] Vremennaya instruktsiya po
 tekhnologii izgotovleniya predvaritel'no napriazhennykh zhelezobee-
 tonnykh konstruktsii. Moskva, Gos.izd-vo lit-ry po stroit., arkhitek-
 stroit.materialam, 1959. 255 p. (MIRA 12:12)

(Continued on next card)

BERDICHEVSKIY, G.I.---(continued) Card 2.

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut betona i zhelezobetona, Perovo. 2. Nauchno-issledovatel'skiy institut betona i zhelezobetona Akademii stroitel'stva i arkhitektury SSSR (for Gvozdev, V.V.Mikhaylov, Berdichevskiy, Bulgakov, Vasil'yev, Dmitriyev, Yevgen'yev, K.V.Mikhaylov, Mulin, Svetov, Frenkel', Belobrov, Matkov, Mitnik, Sklyar, Shilov). 3. Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii i tekhpomoshchi Akademii stroitel'stva i arkhitektury SSSR (for Masenko, Nizhnichenko, Filippova, Mizernyuk, Sheynfel'd). 4. Nauchno-issledovatel'skiy institut Glavmospromstroymaterialov (for Balat'yev, Barbarash). 5. Nauchno-issledovatel'skiy institut po stroitel'stvu Ministroya RSFSR (for Mitgarts, Shifrin). 6. Deystvitel'nyye chleny Akademii stroitel'stva i arkhitektury SSSR (for Gvozdev, V.V.Mikhaylov).
(Prestressed concrete)

MATKOV, N.G., insh.

Investigating properties of injection mixes and the forcing
of them into channels of prestressed reinforced concrete
construction elements. Trudy NIIZHB no.13:39-76 '60.
(MIR. 13:7)

(Prestressed concrete)

MATKOV, N.G., inzh.

A study of the adherence of reinforcement in its channels in
prestressed concrete elements. Trudy NIIZB no.16:5-34 '60.
(MIRA 14:5)

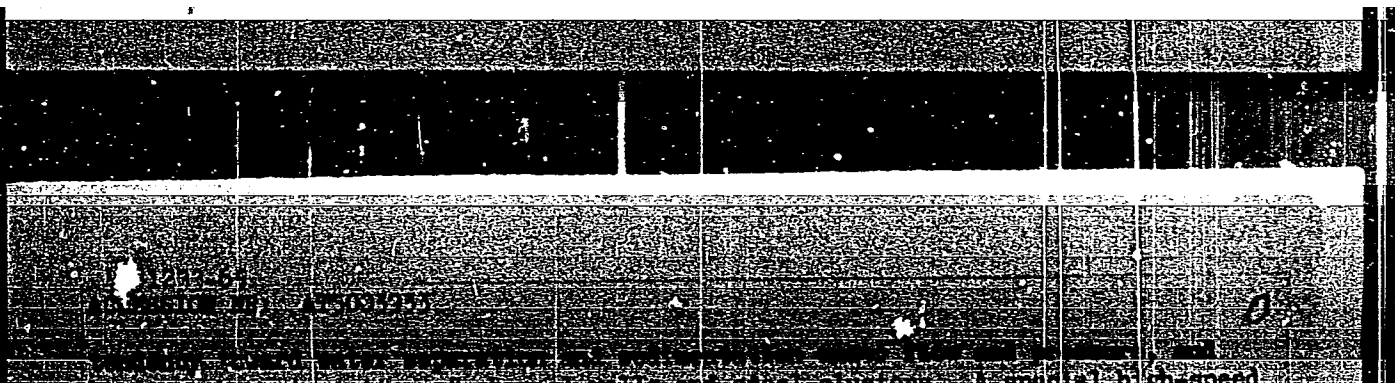
(Concrete reinforcement)
(Prestressed concrete)

MATKOV, N. G., Cand Techn Sci -- "Experimental study of the technology of filling canals with an injection solution and its effect ^{upon} on the ^{strength} ~~stability~~ of prestressed ^{concrete} ~~concrete~~ ^{structures} ~~constructions~~." Mos, 1961. (Acad of Bldg and Architec USSR. Central Sci Res Inst of Bldg Constructions "TsNIISK") (KL, 8-61, 246)

- 269 -

"APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R032932910002-0



APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R032932910002-0"

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The author produced a model of a concrete channel with a reinforcement bundle (see

BULGAKOV, V.S., kand. tekhn. nauk; MATKOV, N.G., kand. tekhn. nauk;
BELIKOV, V.A., inzh.; VASIL', A.P., kand. tekhn. nauk, red.;
KLIMOVA, G.D., red. izd-va; SHEVCHENKO, T.N., tekhn. red.

[Handbook on injecting the channels in prestressed concrete
elements with mortar] Rukovodstvo po in"etsirovaniu kanalov pred-
varitel'no napriazhennykh zhelezobetonnykh konstruktsii. Moskva,
Gosstroizdat, 1962. 28 p. (MIRA 15:9)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut betona i
zhelezobetona, Perovo.

(Prestressed concrete)

SHISHKIN, A.A., prof., doktor tekhn.nauk; MATKOV, N.G., kand.tekhn.nauk

International symposium on grouting of prestressed concrete
elements. Bet.1 zhel.-bet. 8 no.9:427-433 S '62. (MIRA 15:12)
(Prestressed concrete--Congresses)

MATKOV, N.G., inzh.; VASIL'YEV, A.P., kand. tekhn. nauk;
BULGAKOV, V.S., kand. tekhn.nauk, red.

[Experimental study of the freezing of injection mortars
and their adhesion to reinforcement in ducts of prestres-
sed reinforced concrete elements] Eksperimental'noe issle-
dovanie zamorazhivaniia in"eksionnykh rastvorov i ikh stsep-
leniia s armaturoi v kanalakh predvaritel'no napriazhennykh
zhelezobetonnykh konstruktsii. Moskva, Nauchno-issl. in-t
betona i zhelezobetona. 1963. 36 p. (MIRA 17:9)

VASIL'YEV, A.P., kand.tekhn.nauk; BULGAKOV, V.S., kand.tekhn.nauk;
MATKOV, N.G., kand.tekhn.nauk

Quality grouting of precast prestressed concrete elements. Bet.
1 shel.-bet. 9 no.2:53-59 F '63. (MIRA 16:5)
(Prestressed concrete)

VASIL'YEV, A.P., kand. tekhn. nauk; MATKOV, N.G., kand. tekhn. nauk

Grouting of prestressed concrete structures in winter by
electric heating of cables. Bet. 1 zhel.-bet. 9 no.11:502-
508 N '63. (MIRA 17:1)

VASIL'YEV, A.P., doktor tekhn. nauk; BULGAKOV, V.S., kand.
tekhn. nauk; MATKOV, N.G., kand. tekhn. nauk

[Grouting of ducts of prestressed concrete elements]
In"etsirovanie kanalov predvaritel'no napriazhennykh
shelozobetonnykh konstruktsii. Moskva, Stroiizdat,
1964. 245 p. (MIRA 18:3)

SOV/137-58-7-14719

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 109 (USSR)

AUTHORS: Mirgalovskaya, M.S., Matkova, L.I., Strel'nikova, I.A.,
Komova, E.M.

TITLE: Production of Single Crystals of InSb and AlSb and Study of the
Properties Thereof (Polucheniye monokristallov InSb i AlSb i
izucheniye ikh svoystv)

PERIODICAL: Tr. 1-y Mezhvuzovsk. konferentsii po sovrem. tekhn.
dielektrikov i poluprovodnikov. 1956 g. Leningrad, 1957,
pp 163-169

ABSTRACT: A description is offered of a method of producing single
crystals of the semiconducting chemical compounds InSb and
AlSb. The single crystals were obtained by pulling in an inert
gas atmosphere. The fact that the rods consisted of single
crystals was determined visually by cleavage and by Laue dif-
fraction pattern of the cleavage plane. Production of single
crystals of InSb involved no particular difficulties. The InSb
was purified by re-pulling. The resistance of the samples ob-
tained was 0.01-0.014 ohm·cm, and the mobility of the holes
was $2.1 \cdot 10^3$ cm²/v sec. The InSb compound has no rectifying

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Production of Single Crystals of InSb and AlSb (cont.)

effect. Production of single crystals of AlSb by pulling from a melt is difficult, as an excess of $>0.29\%$ Al in the mix over the stoichiometric ratio leads to the formation of a second phase, and this speeded the corrosion of the compound in air. To produce a single-phase compound, it is necessary to hold it for a long time at high temperatures and to stir the melt. The single crystals of AlSb produced have p-type conductivity. The resistivity of the specimens is $0.03-0.4 \text{ ohm}\cdot\text{cm}$, the reverse voltage is $3-4 \text{ v}$, attaining 12 v in individual samples, the rectification factor is 1600 , the mobility of the holes $127 \text{ cm}^2/\text{v sec}$ at $n_g = 1.2 \cdot 10^{18} \text{ cm}^{-3}$. When the compounds are purified by controlled recrystallization, the electrical resistivity of the specimens declines at the first passes, but increases in subsequent ones. The resistivity of the initial InSb polycrystal of InSb is $0.014 \text{ ohm}\cdot\text{cm}$. The single crystal from the first pulling has a resistivity of $0.0008 \text{ ohm}\cdot\text{cm}$, and a single crystal pulled twice has a resistance of $0.01-0.114 \text{ ohm}\cdot\text{cm}$. The pulling rate is $\sim 1.0 \text{ mm/min}$, the rotation of the crucible being a few revolutions per min. It was established that excess of a component over the stoichiometric ratio does not change the type of conductivity of these compounds. It is found that floating-zone refining of AlSb makes it possible to increase the resistivity of the specimens (to $20-200 \text{ ohm}\cdot\text{cm}$) and to reduce the number of carriers by $\sim 1.75 \cdot 10^{14} \text{ cm}^{-3}$.

Card 2/2 1. Single crystals--Production 2. Single crystals--Properties V.Kh.

MA/KOVA, L. I.

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S/078/60/005/07/06/014
B004/B056

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AUTHORS: Mirgalovskaya, M. S., Matkova, L. I.

TITLE: The Problem of the Production of Indium Antimonide of High Purity

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 7, pp. 1551-1554

TEXT: The authors produced InSb^{21} from spectrally pure In and Sb, as well as from industrial indium ($10^{-2}\%$ impurities) at 650-700°C and purified it by zonal recrystallization at 10^{-5} torr in a quartz tube. The results obtained confirm the efficacy of this method. The distribution of impurities in the melt after recrystallization corresponded to the segregation coefficients mentioned in publications. Table 1 gives the measured results for samples cut out from the center of the melt. The change in the electrical characteristic values along the melt is shown by a figure and by Table 2. In the case of an optimum shifting rate V of the zone of 8-10 mm/h, macrocrystalline samples with the following

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The Problem of the Production of Indium
Antimonide of High Purity

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optimum properties were obtained: $\mu = 82,500 \text{ cm}^2/\text{v.sec}$; $\rho = 0.01 \text{ ohm.cm}$; $R_X = -700 \text{ cm}^3/\text{coul}$ and $n = 1.3 \cdot 10^{16} \text{ cm}^{-3}$ (Table 3). By the method developed by Chokhrail'skiy, single crystals with the following properties were obtained with a drawing rate of 0.7-0.8 mm/min, rotation of the inoculating agent of 3 to 4 rpm and rotation of the crucible of 4 to 5 rpm: $\mu = 50,000 \text{ cm}^2/\text{v.sec}$; $\rho = 0.01 \text{ ohm.cm}$; $R_X = -550 \text{ cm}^3/\text{coul}$ and $n = 1.3 \cdot 10^{16} \text{ cm}^{-3}$ (Table 4). The reduced value of μ is ascribed to impurities of the crucible, the heater, argon and the reagents. As shown by Table 4, these impurities occur also in the case of repeated drawing of single crystals with greater intensity. The authors refer to papers by V. M. Glazov and D. A. Petrov (Ref. 12). There are 1 figure, 4 tables, and 16 references: 7 Soviet, 2 British, and 6 American. X

SUBMITTED: April 8, 1959

Card 2/2

MATKOVA, L.N.

137-58-2-3916

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 234 (USSR)

AUTHORS: Mirgalovskaya, M.S., Matkova, L.N., Komova, E.M.

TITLE: The Mg-Al-Mn System (Sistema Mg-Al-Mn)

PERIODICAL: Tr. In-ta metallurgii AN SSSR, 1957, Nr 2, pp 139-148

ABSTRACT: The Mg corner of the Mg-Al-Mn system was investigated by microscopic and x-ray methods, and by measurement of microhardness. It was established that the field of primary crystallization of α Mg borders the fields of crystallization of the λ phase (solution of Al in α Mn), the ξ phase of the Al-Mn system, and the δ phase of the Mg-Al systems. The position of the corresponding monovariant curves was defined. It is shown that addition of up to 1% Al increases the solubility of β Mn and α Mg by 4-9 times. The invariant points were found at 438.5° (~35% Al and 0.5% Mn) and at 438° (37.5% Al and 0.5% Mn). In the former, the liquid + λ $\rightarrow$ α + ξ reaction occurs, and in the latter liquid + ξ $\rightarrow$ α + δ .
D. E.

Card 1/1

1. Aluminum-magnesium-manganese systems --Microscopic analysis
2. Aluminum-magnesium-manganese systems --X-ray analysis

SPASSKIY, S.S.; TOKAREV, A.V.; MIKHAYLOVA, M.A.; TARASOV, A.I.; MOLCHANOVA, T. V.;
MAT'KOVA, M. Ye.

Copolymerization of unsaturated polyesters with vinyl monomers. Trudy
Inst. khim. UFAN SSSR no.3:21-32 '59 (MIRA 14:3)
(Esters) (Vinyl compounds) (Polymerization)

MAT'KOVA, M. Ys.

3 (4), 15 (6)
Abstracts

Gerasimov, S. S., Mikhaylov, B. A.,
Taranov, A. I., Molchanov, V. I.,
Mat'kova, M. Ye.

9/16-55-7-1/40

TITLE:

Copolymerization of Saturated Polyesters With Vinyl Monomers.
IV. Copolymerization of Polyethylene Glycol Succinate With
Styrene, Acrylonitrile, Methyl Methacrylate, and Vinyl Acetate

PERIODICAL:

Journal Fizicheskoy khimii, 1959, Vol 33, No 7, pp 1449 - 1454
(USSR)

ABSTRACT:

In a previous paper (Ref 1) it was found among other things
that acrylonitrile during copolymerization (C) with unsaturated
polyesters (PE) shows decreasing activity compared with the
(C) with diesters of fumaric acid. It was assumed that these
phenomena are due to steric factors. It was confirmed that this
assumption, the authors investigated the (C) of polydiethylene
glycol succinate (I) with styrene (II), acrylonitrile (III),
methyl methacrylate (IV), and vinyl acetate (V). The properties of
the vinyl monomers are listed in Table 1. The (C) constants (CC)
were determined according to the Mayo-Lewis equation (Ref 4).
The experimental results obtained are listed in Table 2 from

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which the (CC) as well as the reaction rate of the chain radi-
cals of the (PE) and of the vinyl monomers were calculated
(Table 3). The activity of the vinyl monomers increases (with
respect to the chain radical of the (PE)) from (II) to (V).
While during the (C) of vinyl monomers an opposite phenomenon
may be observed (Ref 2). The experimental results obtained
(V) the weakest activity. The experimental results obtained
confirm the assumption that the steric factors are the main
cause of the observed phenomena. The authors also investigated
the influence of the increasing size of the radical at the
double bond and with decreasing elasticity of the monomer unit
on the (C) constants. The authors plotted diagrams of the integral composition
of the systems under investigation (Figs 1 - 4). Furthermore,
they plotted out among other things that the copolymers obtained
are formed by the systems (I) + (II) and (I) + (IV). The above
diagrams permit determination of the conditions for preparing
homogeneous copolymers. There are 4 figures, 5 tables, and
9 references, 7 of which are Soviet.

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ASSOCIATION: Ural'skiy filial Akademii Nauk SSSR Sverdlovsk (Ural Branch of
the Academy of Sciences of the USSR, Sverdlovsk)

SUBMITTED: March 17, 1959

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S/190/60/002/006/005/012

B015/B064

15.8114 also 2209

AUTHORS: Mat'kova, M. Ye., Spasskiy, S. S.

TITLE: Copolymerization of Polyethylene Glycol Fumarate Phosphinate With Allyl Derivatives of Phosphoric Acid

PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960. Vol. 2, No. 6 pp. 879-883

TEXT: This is the VIII. information of the series on the copolymerization of unsaturated polyesters with vinyl- and allyl monomers. The copolymerization of the allyl derivatives of phosphoric acid with mixed ethylene glycol polyesters of fumaric- and phosphinic acid was investigated. To determine the relative activity of these compounds in the copolymerization the copolymerization constants were determined of the following systems: polyethylene glycol fumarate phenyl phosphinate - allyl diethyl phosphineacetate and polyethylene glycol fumarate phenyl phosphinate - diethylallyl phosphinic acid and the values $r_1 = 1.73 \pm 0.3$ and $r_2 = 0.015 \pm 0.06$, and $r_1 = 2.07 \pm 1.12$ and $r_2 = 0.09 \pm 0.05$ respectively were

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Copolymerization of Polyethylene Glycol Fumarate S/190/60/002/006/005/012
Phosphinate With Allyl Derivatives of Phosphoric B015/B064
Acids

obtained (Table). A comparison of the copolymerization constants shows that the activity of the allyl derivatives increases with respect to the polyester radicals if the first are copolymerized with mixed polyesters. The increase in the activity of the allyl derivatives of phosphoric acids in the copolymerization with polyfumarate phosphinates is apparently due to the presence of the P=O group in the mixed polyesters. The method of producing the mixed ester and the determination of the copolymerization constants is described. Phosphorus is determined in copolymers by the method of Keyman (Ref. 4), while the diagrams (Fig. 3) of the integral composition of the copolymers were determined by the equation of L. M. Gindin, A. D. Abkin, and S. S. Medvedev (Ref. 7). There are 3 figures, 1 table, and 8 references: 7 Soviet and 1 US

ASSOCIATION: Institut khimii Ural'skogo filiala AN SSSR (Institute of
Chemistry of the Ural Branch of the Academy of Sciences
USSR)

SUBMITTED: February 18, 1960

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83471

S/190/60/002/003/001/019
B004/B060

15.8000 *class* 2109, 2209

AUTHORS: Spasskiy S. S., Mat'kova, M. Ye., Tokarev, A. V

TITLE: Copolymerization of Unsaturated Polyesters With Vinyl Monomers VI Thermomechanical Analysis of the Copolymers of Unsaturated Polyesters and Vinyl Monomers

PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960, Vol 2, No 9, pp. 1297-1300

TEXT: In previous articles (Refs. 1,2), the authors studied the copolymerization of the polyesters (M_1) polydiethylene glycol fumarate and poly 1,3-butylene glycol fumarate with the vinyl monomers (M_2) styrene, vinyl acetate, acrylonitrile, and methyl methacrylate and determined the copolymerization constants given in a table of the present paper. On the basis of these constants, the authors determined the polymer structure by calculating the fraction of M_2-M_2 , $M_1-M_2-M_1-M_2$, or M_1-M_1 bonds. In the present article, the authors describe the thermomechanical

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Copolymerization of Unsaturated Polyesters
With Vinyl Monomers. VI Thermomechanical
Analysis of the Copolymers of Unsaturated
Polyesters and Vinyl Monomers

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B004/B060

behavior of the copolymers. A method developed by V. A. Kargin et al (Refs. 3,4) was used for their investigation. Deformation as a function of temperature was measured by means of an apparatus designed by V. L. Tssetlin, V. I. Gavrilov, N. A. Velikovskaya, and V. V. Kochkin (Ref. 5). Respective curves are shown in Fig. 1. The curves observed were of two types. In the first type (copolymers of the two polyesters with vinyl acetate and of poly-1,3-butylene glycol fumarate with styrene in an azeotropic ratio), deformation starts only at the decomposition temperature (between 270 and 290°C; at 240 - 245°C, only in the case of acrylonitrile copolymers). In the second type (copolymers with nonazeotropic ratio of components, copolymers with styrene excess, copolymers of methyl methacrylate), deformation already takes place at a lower temperature; but with further rising temperature the curve forms a plateau (deformation remains constant), until a further deformation occurs at the decomposition temperature. The curves of the first type are characteristic of $M_1-M_1-M_1$ and $M_1-M_2-M_1-M_2$ bonds, while the curves of the second type are

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Copolymerization of Unsaturated Polyesters
With Vinyl Monomers. VI. Thermomechanical
Analysis of the Copolymers of Unsaturated
Polyesters and Vinyl Monomers

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B004/B060

characteristic of linear structures with $M_2-M_2-M_2$ bonds. These results confirm the structures calculated from the copolymerization constants. The authors thank G. L. Slonimskiy for his introduction into the method of thermomechanical analysis. There are 1 figure, 1 table, and 6 Soviet references.

ASSOCIATION: Institut khimii Ural'skogo filiala AN SSSR (Institute of Chemistry of the Ural Branch AS USSR)

SUBMITTED: November 25, 1959

X

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MAT'KOV, M. YE.

307/73-30-1-56,78

Spisskiy, S. S., Zikarev, A. V., Mikheeva, M. A.,
Molchanova, T. V., Mat'kova, M. Ye.

Copolymerization of Unsaturated Polyesters With Vinyl
Monomers. II. Concerning the Nature of Copolymeriza-
tion of Unsaturated Polyesters With Vinyl Monomers

Zhurnal obshchey khimii, 1960, Vol 30, Nr 1, pp 250-257
(USSR)

Copolymers of poly(1,3-butylene glycol fumarate) with
vinyl acetate, acrylonitrile, vinyl acetate, methyl
acrylate, and poly(ethylene glycol fumarate) with
vinyl acetate were prepared in order to study the
nature of this copolymerization. Literature data
concerning the copolymerization constants of different
copolymers are reviewed. Copolymerization of polyesters
with acrylonitrile, vinyl acetate, and methyl meth-
acrylate was conducted in sealed glass ampoules in a

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nitrogen atmosphere. The ampoules were placed in a
bath at $50 \pm 0.5^\circ\text{C}$. Benzoyl peroxide was used
as an initiator. After completion of the reaction
(to the given extent), the ampoules were removed from
the thermostat and frozen with liquid nitrogen. The
trimeric copolymer was separated from other products
of reaction and the initial prod. was treated with
acetone containing traces of hydroquinone, and washing
with acetone. Copolymerization of poly(1,3-butylene
glycol fumarate) with vinylcarbazole was conducted
in toluene solution (in nitrogen atmosphere) in the
presence of benzoyl peroxide (up to 1%). The mixture
was heated for 65 hr at 100°C , but no copolymers were
obtained. From the data obtained, the following
conclusions were made: activity of the polymer in
the reaction is low, and the activity of the polymer
with respect to the reaction of vinylcarbazole with
fumaric acid is low. The reaction of vinylcarbazole with
fumaric acid. Copolymerization of vinylcarbazole with
polyesters does not take place at all. Apparently,
the bulky substituents cause steric hindrance affecting

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the copolymerization process. The activity of
acetate in the copolymerization remains unchanged.
Copolymerization constants of the following copolymers
were determined:

	r_1	r_2
Poly(1,3-butylene glycol fumarate) - acrylonitrile	1.12 ± 0.040	1.03 ± 0.2
Poly(1,3-butylene glycol fumarate) - methyl methacrylate	0.5 ± 0.5	2.1 ± 0.30
Poly(1,3-butylene glycol fumarate) - vinyl acetate	0.2 ± 0.2	0.15 ± 0.07
Poly(ethylene glycol fumarate) - vinyl acetate	0.2 ± 0.1	0.020 ± 0.02

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There are 2 tables; 2 figures; and 16 references. 2
U.S. Pat. 2,711,919. The U.S. Patent 2,711,919 and
U.K. references are: D. W. C. Brown, and Ind. 1,100,000
Ind. 1,957,559; D. W. C. Brown, and Ind. 1,100,000
491; M. Roberts, D. W. C. Brown, and Ind. 1,100,000
126; D. W. C. Brown, and Ind. 1,100,000
116; D. W. C. Brown, and Ind. 1,100,000
and Ind. 1,100,000.

ASSOC. ACTION

88730

S/190/61/003/001/014/020
B119/B216

15.8114

AUTHORS: Mat'kova, M. Ye., Spasskiy, S. S.

TITLE: Copolymerization of poly-1,3-butylene-glycol fumarate and
diethyl allyl phosphinic acid

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 1, 1961, 93-98

TEXT: The present work studies the activity of each reaction component in copolymerization of the compounds mentioned in the title. Poly-1,3-butylene-glycol fumarate (A) was prepared by polycondensation of equimolar amounts of maleic anhydride and 1,3-butylene glycol. Allyl phosphonic acid diethyl ester (B) was obtained by A. Ye. Arbusov's rearrangement reaction (Ref. 10) from equimolar amounts of triethyl phosphite and allyl bromide. A and B mixed in various proportions were copolymerized in nitrogen-filled sealed ampoules at 80°C. The copolymers obtained were analyzed as follows: Pycnometric density determination on powdered product, analysis for P, hydrolysis of copolymer by concentrated H_2SO_4 ; The specific contraction of the monomeric unit of A was found at 0.0971 by comparing the specific

Card 1/3

88730

Copolymerization of poly-1,3-butylene...

S/190/61/003/001/014/020
B119/B216

volume of the copolymerizate obtained from A and B with that of the copolymerizate of diethyl fumarate and styrene (in accordance with the rule of additivity of specific volumes (Ref. 6)). The specific volume of the polymer B was determined graphically at 0.8700 basing on the additivity of the specific volumes of the copolymer of B with vinyl acetate. Thermomechanical tests of the copolymer from A and B were carried out in equipment designed by V. L. Tseytlin, V. I. Gavrilov, I. A. Velikovskaya and V. V. Kochkin. Copolymerization constants were calculated by means of the integral equation by R. Mayo and M. Lewis (Ref. 2). Corrections are made for unreacted double bonds of the polyester. Results: The polymerization constants of the system A - B are $r_1 = 9.25 \pm 3.00$; $r_2 = 0.12 \pm 0.008$. B exhibits a lower activity in copolymerization with unsaturated polyesters than the fumaric double bonds of the polyester. The three-dimensional structure of the copolymer is formed not only as a result of interaction of polyester double bonds with the monomer, but also by the mutual interaction of these double bonds. (Approximately 80% of the existing double bonds react during copolymerization, but only 40% of this amount reacts with B). Copolymers of close to azeotropic ratio of components exhibited the best mechanical and

Card 2/3

88730

Copolymerization of poly-1,3-butylene...

S/190/61/003/001/01.4/020

B119/B216

dielectric properties. They are flame-resistant and suitable as filler for reinforced plastics. Mention is made of a publication by L. M. Gindin, A. D. Abkin, and S. S. Medvedev. There are 4 figures, 2 tables, and 12 references: 10 Soviet-bloc and 3 non-Soviet-bloc.

ASSOCIATION: Institut khimii Ural'skogo filiala AN SSSR (Institute of Chemistry of the Ural Branch of the AS USSR)

SUBMITTED: June 8, 1960

Card 3/3

B. MATKOVIC

Coordination in thorium (IV) acetylacetonate. D. Grd-
 nic and B. Matkovic (Univ. Zagreb, Yugoslavia). *Nature*
 182, 485-6 (1958); *et. Crisl. Chem. Acta* 30, 93 (1958).—
 Multiple-film Weissenberg photographs, with Cu K α radia-
 tion, were used to obtain intensity data for (h0l) and (0kl)
 reflections of Th(C₆H₇O₅)₄ (I). A perspective view of the I
 mol. model, as obtained from (h0l) and (0kl) electron-d.
 maps, is presented. The coordination polyhedron is a
 square antiprism with a slight characteristic distortion.
 The Th-O bond length is 2.41 Å. and the O-Th-O bond
 angle is 70°.

J. Vanderslyn

4
 R. M. J.
 4E2C (g)

J. J.

MATKOVIC, P.; RIBAR, B.;

The crystal structure of cadmium nitrate tetrahydrate.
Croat chem acta 35 no.2:147-152 '63.

1. Institute "Ruder Boskovic", Zagreb, Croatia (for Matkovic)..
2. Physics Department, Faculty of Science, University of Sarajevo, Sarajevo, Bosnia, Yugoslavia (for Ribar).

HUNGARY

PORSZASZ, Janos, and GIBISZER-PORSZASZ, Katalin, Institute of Physiology at the Medical University (Orvostudományi Egyetem Élettani Intézete); and FOLDEAK, Sandor, and MATKOVICS, Beia, Institute of Organic Chemistry at the Scientific University (Tudományegyetem Szerves Kémiai Intézete), both in Pecs.

"Pharmacology of a New Neuroplegic Compound, N,N'-Di(Piperidinomethyl)-3,3'-Diindolyl-Methane"

Budapect, Acta Physiologica Academiae Scientiarum Hungaricae, Vol 29, No 3-4, 8 Jun 1966, pp 299-317.

Abstract: [English article] The title compound causes catalepsy, hypothermia, and reduction in metabolic rate even at low doses (3-5 mg/kg) in rabbits, cats, and dogs. The effect develops slowly and lasts several days. In anesthetized cats it reduces respiration rate, blood pressure, and inhibits carotid sinus pressor reflex. The vasomotor response to carbon dioxide remains. It has no antihistaminic, adrenolytic, antiacetylcholine, or antinicotinic effect. It does not paralyze the autonomic ganglia but blocks polysynaptic spinal reflexes. The analgesic effect is more effective than that of morphine. The compound potentiates ether, Evipan, and chlorpromazine. It synchronizes the cerebral electrical activity. 26 references, including 5 German, 9 Hungarian, and 12 Western. (Manuscript received 15 Jul 1965).

1/1

MATKOVIC, Drazen
SURNAME (in caps); Given Names

Country: Yugoslavia

Academic Degrees: Magister

Affiliation: not given

Source: Zagreb, Pharmaceutski glasnik, No 6, June 1961, pp 231-236.

Data: "Pharmaceutical Service and Public Health Centers."

MATKOVIC, Drazen
SURNAME (in caps); Given Name

Country: Yugoslavia

Academic Degrees: Magister

Affiliation: not given

Source: Zagreb, Farmaaceutski glasnik, No 6, June 1961, pp 236-242.

Data: "Law Concerning Health Protection and Organization of the Health Service."

MATKOVIC, Drazen
SURNAME (in caps); Given Names

Country: Yugoslavia

Academic Degrees: Magister

Affiliation: /not given.

Source: Zagreb, Farmaceutski glasnik, No 7-8, July-August 1961, p. 289.

Data: "Health Legislation of the People's Republic of Slovenia and People's Republic of Bosnia and Herzegovina."

WATKOVIC, Drazen
SURNAME (in caps); Given Names

Country: Yugoslavia

Academic Degrees: Magister

Affiliation: not given /

Source: Zagreb, Farmaceutski glasnik, No 7-8, July-August 1961, p. 290.

Data: "Main Assembly of the Association of Health Institutions of the
People's Republic of Croatia."

MATKOVIC, DRAZEN

1. The separation and isolation of the components of the mixture of the two substances, the first of which is a solid and the second is a liquid, is carried out by the method of fractional distillation. The first fraction is collected at 100°C and the second at 150°C. The first fraction is a solid and the second is a liquid.

2. The solid fraction is dried in a vacuum oven at 100°C for 24 hours. The liquid fraction is dried in a vacuum oven at 150°C for 24 hours.

3. The solid fraction is then subjected to a series of extractions with a suitable solvent. The first extraction is carried out with a solvent of low boiling point and the second with a solvent of high boiling point. The first extraction is carried out at 100°C and the second at 150°C. The first extraction is a solid and the second is a liquid.

4. The solid fraction is then subjected to a series of extractions with a suitable solvent. The first extraction is carried out with a solvent of low boiling point and the second with a solvent of high boiling point. The first extraction is carried out at 100°C and the second at 150°C. The first extraction is a solid and the second is a liquid.

5. The solid fraction is then subjected to a series of extractions with a suitable solvent. The first extraction is carried out with a solvent of low boiling point and the second with a solvent of high boiling point. The first extraction is carried out at 100°C and the second at 150°C. The first extraction is a solid and the second is a liquid.

6. The solid fraction is then subjected to a series of extractions with a suitable solvent. The first extraction is carried out with a solvent of low boiling point and the second with a solvent of high boiling point. The first extraction is carried out at 100°C and the second at 150°C. The first extraction is a solid and the second is a liquid.

7. The solid fraction is then subjected to a series of extractions with a suitable solvent. The first extraction is carried out with a solvent of low boiling point and the second with a solvent of high boiling point. The first extraction is carried out at 100°C and the second at 150°C. The first extraction is a solid and the second is a liquid.

8. The solid fraction is then subjected to a series of extractions with a suitable solvent. The first extraction is carried out with a solvent of low boiling point and the second with a solvent of high boiling point. The first extraction is carried out at 100°C and the second at 150°C. The first extraction is a solid and the second is a liquid.

9. The solid fraction is then subjected to a series of extractions with a suitable solvent. The first extraction is carried out with a solvent of low boiling point and the second with a solvent of high boiling point. The first extraction is carried out at 100°C and the second at 150°C. The first extraction is a solid and the second is a liquid.

10. The solid fraction is then subjected to a series of extractions with a suitable solvent. The first extraction is carried out with a solvent of low boiling point and the second with a solvent of high boiling point. The first extraction is carried out at 100°C and the second at 150°C. The first extraction is a solid and the second is a liquid.

MATKOVIC, Drazen, mr

What the analysis of the work of pharmacies in 1963 is telling
us. Farmaceut gl Zagreb 20 no.7/8:308-310 J1-Ag '64.

MATKOVIC, Dragan, mr.

Management of health institutions. Pharmaceut gl Zagreb 20
no. 62255-257 Je' 64.

MATKOVIC, Jelka; WEBER, K.; FLES, D.; PAULIC, Nevenka

On inhibitory properties of oximes. 1. Action of oximes on the chemiluminescence of luminol. Arh hig rada 11 no.3:177-202 '60.

1. Institut za medicinska istrazivanja i medicinu rada Jugoslavenske akademije znanosti i umjetnosti, Zagreb.

(HYDROXYLAMINES chemistry) (LUMINESCENCE)
(HETEROCYCLIC COMPOUNDS chemistry)

MATKOVIC, Jelka; WERNER, E.; PALLA, Ijerka

On inhibiting properties of oximes. II. Depression of luminescence with oximes. Arb. vlg. rada 14 no. 2:99-106 1971.

1. Institut za medicinska istrazivanja i medicinu rada Jugoslavenske akademije znanosti i umjetnosti, Zagreb.

MATKOVIC, Jolka; MILLER, E.

On the luminescence of some of the Germanium compounds
nerve poisons and their use. *Ann. N.Y. Acad. Sci.* 141-149 1964.

On the luminescence of some of the Germanium compounds
for their use in the chemical industry. *Ann. N.Y. Acad. Sci.* 141-149 1964.

1. Institut de chimie, Universitat de la Sorbonne, Paris.

MATKOVIC, V.

...measurements in red clay (Korčula) at the
in physicochemical characterization: B. Herrmann, S.
March, and V. Matković (Inst. Light Metals, Zagreb,
Yugosl.), *Chem. Abstr.* 72: 215-31(1963)(in German).
...after calcination of local kaolinite
(C.A. 56, 10554) are due to interference by kaolinite.
The difficulties are based to an unfavorable balance be-
tween (1) migration of the Na-Al silicate (II) toward and
(2) adsorption of I on the red clay (III) etc. Apparent vi-
tality results of (Catalyst-Absorbent complexes) were seen
of the dispersed system I + II in the reaction with I and the
extent of (2). Pure Na silicate was prepared as a fine
brown liquid. (MnO₂ played a role, see 249). The
...which is caused
to strong interaction between 2 and 3, indicating a large
extent of (2) in each case. Aggregation of II particles
increases with pH, the latter being, however, imperfect
... The aggregation problem might be solved
by changing the conditions of calcination. V. Matković

2

MATKOVIC, V.

Limiting chemical systems in the separation of red sludge from aluminate solution in the Bayer process. E. Herrmann, I. Dvorak, O. Kerec, and J. Matkovic. *Chem. Z.* 123, 22-23 (1961).—Behavior of the red sludge or silt formed in the digestion of bauxite by the Bayer process was studied. Bauxites from Dalmatia, Herzegovina, and Bosnia were dried at 300° for 20 min., ground, and digested in a stirred autoclave at 180° for 130-45 min. at a ratio (Al₂O₃:Na₂O) of 1:1.8, yielding an aluminate soln. having a ratio of 1:3.8. Settling of silt was observed at 80°. Peptization of the sludge occurred on diln., below about 10 g. Al₂O₃ and 15 g. Na₂O/l. The limiting concns. depend on conditions of digestion and source of bauxite. Samples from upper and lower portions of settling sludge show marked differences in analysis. Sludge from the walls and heating surfaces of the autoclave were high in SiO₂. Addn. of flour or starch to the aluminate solns. in small amt. (0.04 g. starch/l.) increased the limiting concn. of peptization and further addn. decreased this concn. until at 0.35 g. starch/l. it was almost zero. Increasing the concn. of Al(OH)₃ not improved the aggregation of the sludge, as did also addn. of flour before or after autoclaving. L. P. Hall

MATKOVICH, R.S.

New method for the x-ray location of intraocular metal fragments without introduction of a prosthesis [with summary in English].
Vest.oft. 71 no.6:11-16 M-D '58 (MIRA 11:11)

1. Zaveduyushchiy rentgenotdeleniyem Ukrainskogo nauchno-issledovatel'skogo eksperimental'nogo instituta glaznykh bolezney i tkanevoy terapii imeni akademika V.P. Filatova (dir. - doktor meditsinskikh nauk prof. N.A. Pachkovskaya).
(EYE, for bodies.
metal fragments, x-ray localization (Rus))

MATKOVICH, R.S.

Improvement of Komberg's method and Baltin's modification.
Uch.zap. UEIGB 5:216-218 '62 (MIRA 16:11)

*

KOVACS. Endre; MATKOVICS, Bela

Redox studies on surface and deep cultures. Kiserlete orvostud.
6 no.6:527-530 Nov 54.

1. Szegedi Orvostudományi Vegytani és Biokémiai Intézete.

(OXIDATION-REDUCTION

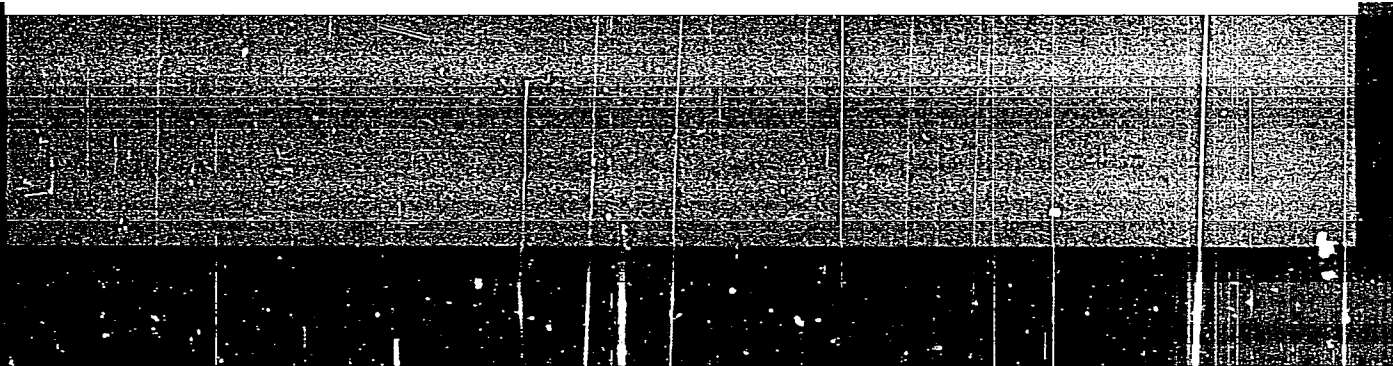
redox potential, determ. in superficial & deep cultures)

(BACTERIA, culture

redox potential determ. in superficial & deep cultures)

"APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R032932910002-0



APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R032932910002-0"

MATKOVICS, P., BRUNTS, A., HANZS, A.

Changes in redox potential of surface cultures of streptococci, priced
effected by infections. In English. p. 212, (ACIA RESEARCH, Budapest,
Hungary). Vol. 5, No. 1/2, 1954.

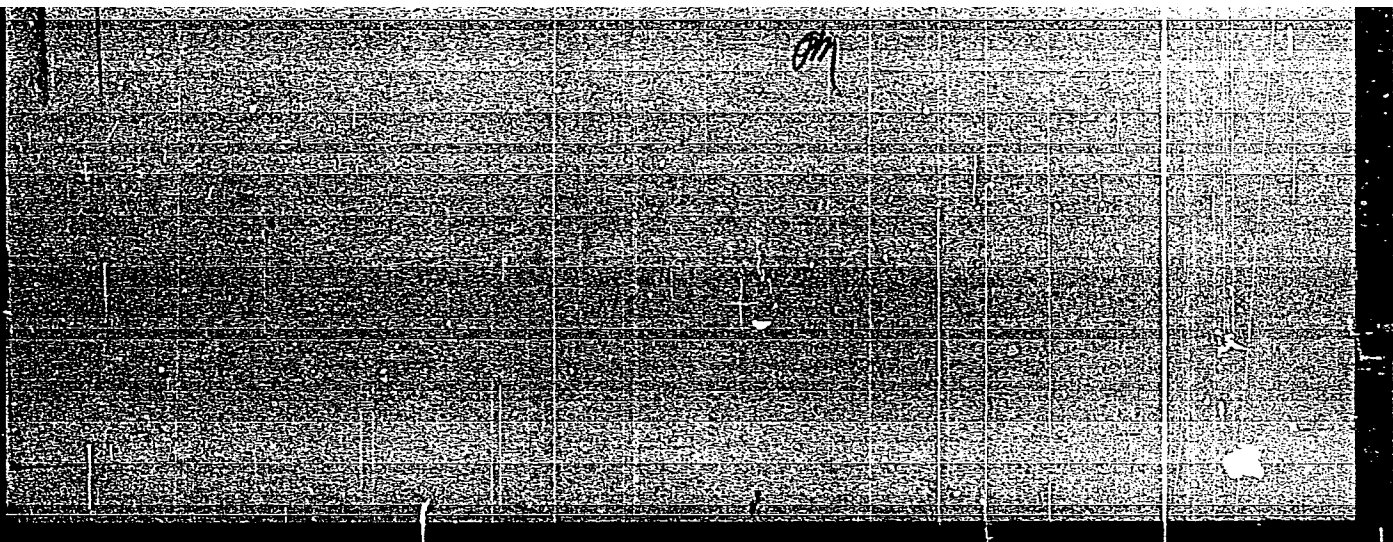
50: Monthly List of East European Accessions, (ACIA RESEARCH, Budapest,
May 1955, incl.

M. H. KAYES, 12

Photometric determination of reducing substances. Hammett
and B. K. K. (1947) Nat. Bur. Stand. (A) 51: 101-102. Place 1.0 ml. of soln. contg.
 0.001 mg. sample in a 50-ml. graduate. Add 10 ml. of soln. of 60 g/l. Cu^{2+} in 1000 ml. H_2O and 10 ml. of a soln. of 364 g. Seignolle salt plus 100 g. NaOH brought to 1000 ml. with H_2O . Heat the mixt. on a steam bath until the pptn. of Cu_2O occurs, then increase the vol. to 50 ml. with distd. H_2O . After cooling to room temp. det. the extinction of the supernatant soln. M. J. D. Low

"APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R032932910002-0



APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R032932910002-0"

HUNGARY / Analytical Chemistry--Analysis of
organic substances.

E-3

Abs Jour : Referat Zhur--Khimiya, No. 11, 1959, 38379

Author : Matkovich, B.; and Kovacs, Oe.

Inst : Not given

Title : The Chromatographic Separation of Isomers of
3-Granatanol

Orig Pub : Acta Phys et Chem Szeged, 4, No. 1-2, 66-68
(1958) (in German)

Abstract : The authors have proposed a method for the quan-
titative separation of α -3-granatanol (I) and
B-3-granatanol (II) by passing an ashless mixed
solution through a column packed with Al_2O_3 .
I is completely eluted with petroleum ether and
the II left on the column can be eluted with
methanol. The eluates are evaporated to dryness,

Card 1/2

COUNTRY : Hungary
CATEGORY :

ABS. JOUR. : RZKhim., No. 1959, No. 1-2

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : The article describes the synthesis of a series of new compounds, which are derivatives of the 1,2,3,4-tetrahydro-1,2,3,4-tetrahydropyridine-5-carboxylic acid. The compounds are obtained by the reaction of the acid with various amines. The results of the synthesis are given in the table below.

Compound	Yield, %	mp, °C	lit. mp, °C	lit. ref.
1,2,3,4-tetrahydro-1,2,3,4-tetrahydropyridine-5-carboxylic acid	100	150-151	150-151	[1]
1,2,3,4-tetrahydro-1,2,3,4-tetrahydropyridine-5-carboxylic acid, N-methyl derivative	85	150-151	150-151	[1]
1,2,3,4-tetrahydro-1,2,3,4-tetrahydropyridine-5-carboxylic acid, N-ethyl derivative	75	150-151	150-151	[1]
1,2,3,4-tetrahydro-1,2,3,4-tetrahydropyridine-5-carboxylic acid, N-propyl derivative	65	150-151	150-151	[1]
1,2,3,4-tetrahydro-1,2,3,4-tetrahydropyridine-5-carboxylic acid, N-butyl derivative	55	150-151	150-151	[1]
1,2,3,4-tetrahydro-1,2,3,4-tetrahydropyridine-5-carboxylic acid, N-pentyl derivative	45	150-151	150-151	[1]
1,2,3,4-tetrahydro-1,2,3,4-tetrahydropyridine-5-carboxylic acid, N-hexyl derivative	35	150-151	150-151	[1]
1,2,3,4-tetrahydro-1,2,3,4-tetrahydropyridine-5-carboxylic acid, N-octyl derivative	25	150-151	150-151	[1]
1,2,3,4-tetrahydro-1,2,3,4-tetrahydropyridine-5-carboxylic acid, N-dodecyl derivative	15	150-151	150-151	[1]

CARD: 2/-

137

COUNTRY :
CATEGORY :

ABB. JOUR. : RZKhim., No. 1957, No. 1

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT :
The article discusses the results of the study of the
chemical composition of the products of the combustion
of the fuel in the engine of the aircraft. The results
show that the products of the combustion of the fuel
contain a large amount of carbon monoxide and carbon
dioxide. The amount of carbon monoxide is about 10-15%
of the total volume of the products, and the amount
of carbon dioxide is about 15-20%. The results also
show that the products of the combustion of the fuel
contain a small amount of water vapor and nitrogen
dioxide. The amount of water vapor is about 1-2% of
the total volume of the products, and the amount of
nitrogen dioxide is about 1-2%. The results also show
that the products of the combustion of the fuel contain
a small amount of sulfur dioxide and sulfur trioxide.
The amount of sulfur dioxide is about 1-2% of the
total volume of the products, and the amount of sulfur
trioxide is about 1-2%.

CARD: 0/-

COUNTRY :
CATEGORY :
ABS. JOUR. : RZKham., No. 1959, No. 15-1
AUTHOR :
INST. :
FILED :

ORIG. POP. :

ABSTRACT

CARD: 4A

138

MATKOVICS, E.; PULAY, G.

"The influence of cholesterol on the growth of the bacterial strain
Penicillium chrysogenum Z. 176." p. 65.

BIOLOGIAI KOZLEMENYEK. (Magyar Biológiai Társaság. Általános Biológiai
Szakosztály). Budapest, Hungary, Vol. 6, No. 1, 1958.

Monthly list of East European Accessions (EEA), LC, Vol. 2, No. 2,
August 1959.
Uncle.

MATKOVICS, Bela; KOVACS, Endre

Rapid method for the determination of horse radish peroxidase activity.
Kiserletes orvostud. 10 no.1:92-93 Feb 58.

1. Szegedi Egyetem Szervekemi, Orvos-Vegytani es Biokemiiai Intezete.
(OXIDASES, determ.
peroxidase from horse radish, rapid titrimetric method
using pyrocatechol as substrate (Hun))

MATEOVICS, Bela; KOVACS, Endre

Determination of the reducing substance content of culture media for bacteria. Kiserletes orvostud. 10 no.2-3:311-312 Apr-June 58.

1. Szegedi Tudományegyetem Szerves Kémiai és Orvosvegytani Intézete.
(CULTURE MEDIA

for bact., determ. of reducing sugar content by Schoorl's method. (Hun))

- (CARBOHYDRATES, determ.

reducing sugars in culture media for bact. by Schoorl's method (Hun))

EXCERPTA MEDICA Sec 4 Vol 12/1 Med. Micro. Jan 59

44. A SIMPLE METHOD FOR rH MEASURING IN MICROBIOLOGICAL PROCESSES - Matkovics B. and Kovacs E. Dept. of Organ. Chem., Univ. of Szeged, Hungary - SCHWEIZ. Z. ALLG. PATH. 1958, 21/3 (666-669) II.us. 3

For measurement of redox potential and rH , a new procedure applicable in both surface and submerged cultures has been elaborated.

MATKOVICS B

Investigation of the formation of N-methylated acetamide
from the use of various halo acetamide esters.
P. J. M. and B. J. M. *Adv. Chem. Ser.* 1-3, 49-51 (1965).
Piperidineacetate (I) (b. 65°; picrate m. 125°), N-methyl-
piperidineacetate (II) (b. 31°; picrate m. 125°), and N-1-pyr-
rolidylacetate (III) (b. 39-40.5°; picrate m. 112.5°) were
pared by the action of a soln. of 1 mole EtOH, benzene,
or indanone in 2.5 moles anhyd. benzene dropped into
1 mole acetic in 2.5 moles benzene. The amine hydrochloride
formed as a by-product was removed by filtration. Highest
yields (85, 71, and 77%, resp.) were obtained when Et
benzoate was used. The order of reactivity of the
amines was piperidine > pyrrolidine > morpholine. The
hydrochlorides of I (m. 117°), II (decomp., 170°) and III
(m. 122.5°) and the methiodides of I (m. 149-50.5°) and II
(m. 122.5°) were prep'd. The methiodide of III could not be
isolated.
Justin W. W. M. M.

4
1-9964

gt

MATKOVICS, Bela; NEMETH, Gyorgy

Some data on the mechanism of the symbiotic nitrogen bond.
Biol kozl 6 no.2:155-160 '59.

1. Szegedi Tudományegyetem Szerves Kémiai Intézete, Szeged,
és Nyírségi Mezőgazdasági Kísérleti Intézet, Nyírtelek, Gyula-
tanya.

*

MATKOVICS, Bela; SIPOS, Gyorgy

The effect of ergosterol on the RP and the dry substance content
of *Penicillium chrysogenum* Q 176. Biol kozl 6 no.2:161-163
'59.

1. Szegedi Tudományegyetem Szerves Kémiai Intézete.

*

MATKOVICS, Bela (Szeged, Oskola u. 16); KOVACS, Endre (Szeged, Kalmay L.
u. 10)

Potential changes during citric-acid production in surface and submerged cultures. In German. Acta biol. Hung. 10 no.2:151-155 '59. (KAI 9:5)

1. Organisch-Chemisches Institut der Universität, Szeged.
(Aspergillus niger) (Citric acid)

BUZAS, Geza (Szeged, Bocskay u.5, Hungary); MATKOVICS, Bela (Szeged, Oskola u.5, Hungary)

The effect of alcohol, acetaldehyde and diffuse light on the reaction of the horse-radish peroxidase-ascorbic acid system. Acta biol Hung 12 no. 1:13-15 '61.

1. Department of Medicinal Plants and Drugs (Head: I. Novak) and Department of Organic Chemistry (Head E. Kovacs), University of Szeged.

FERENCZY, Lajos; MATKOVICS, Bela

Studies on indoleacetic acid precursors. II. On the activity and selectivity of tryptamine and indoleacetonitrile. Acta biol Hung 12 no.2:107-119 '61

1. Department of Plant Physiology, University of Szeged (Head: I Szalai) and Department of Organic Chemistry, University of Szeged (Head O. Kovacs)

PORSZASZ, J.; FOLDEAK, S.; MATKOVICS, B.; BARANKAY, T.; GIBISZER-PORSZASZ,
Katalin

Comparative pharmacology of N-substituted tertiary and quaternary
amino esters of acetic and propionic acid. Acta physiol. hung. 19
no.1-4:235-258 '61.
(ACETATES pharmacol.) (PROPIONATES pharmacol.)

HUNGARY

MATKOVICS, Bela; Organic Chemical Institute of the University Jozsef Attila (Jozsef Attila Tudományegyetem Szervi. Kémiai Intézete), Szeged.

"The Use of Tritium as an Indicator in the Study of the Stereospecificity of Reactions in the Metabolism of Bile Acids."

Budapest, Biologiai Közlemények, Vol XI, No 1, 1963, pp 59-65.

Abstract: The author describes results which bear on the mechanism of the in-vivo conversion of cholic acid to desoxycholic acid in rats. The experiments, with tritium-labelled materials, showed that the main path of this conversion involves as the principal intermediate 6,7-unsaturated cholenic acid which is formed by bacterial action in the large intestine. In parallel, 7-ketocholanic acid will also yield some desoxycholic acid. Ursodesoxycholic acid is formed from chenodesoxycholic acid via 7-ketolithocholic acid. In general, the stereochemistry of the elimination of the 7 α hydroxyl group is such that water is split out in a diaxial, trans manner (7 α OH - 6 β H), via a 6,7-unsaturated intermediate; the stereochemical mechanism of the elimination of the 7 β hydroxyl group is not yet known but the reaction does occur catalysed by intestinal bacteria. Of 14 references, 13 are Western and 1 is Hungarian.

FOLDEAK, S.; CZOMBOS, J.; MATKOVICS, B.; PORZASZ, J.

Synthesis of substances effecting on C.N.S. Pt.4. Acta phys
chem Szeged 9 no. 3/4:134-142 '63.

1. Institute of Organic Chemistry, Jozsef Attila University,
Szeged (for Foldeak, Czombos, Matkovics). 2. Institute of
Physiology, Medical University, Szeged (for Porzasz).

MATKOVICS, B.; FOLDEAK, S.; TEGYEI, Zs.(Miss); CSEN, I.; PORSZASZ, J.

Synthesis of substances effecting on C.N.S. Pt.6. Acta
phys chem Szeged 9 no. 3/4:143-147 '63.

1. Institute of Organic Chemistry, Jozsef Attila University,
Szeged (for Markovics, Foldeak, Tegyey). 2. Institute of
General and Physical Chemistry, Jozsef Attila University,
Szeged (for Csen). 3. Institute of Physiology, Medical University,
Szeged (for Porszasz).

LAZAR, J.; MATKOVICS, B.; FOLDEAK, S.; PORSZASZ, J.

Synthesis on substances effecting on C.N.S. Pt.7.
Acta phys chem Szeged 9 no. 3/4:148-156 '63.

1. Institute of Organic Chemistry, Jozsef Attila University,
Szeged (for Lazar, Matkovics, Foldeak). 2. Institute of
Physiology, Medical University, Szeged (for Porszasz).

FOLDEAK, S.; MATKOVICS, B.; DEBO, I.; PORCSAK, I.

Synthesis of substances affecting the central nervous system.
Acta phys chem Szeged 10 no.1/2:41-50 '64.

1. Institute of Organic Chemistry of Attila Jozsef University, Szeged (for Foldeak and Matkovics). 2. Institute of Applied Chemistry of Attila Jozsef University, Szeged (for Debo).
3. Physiological Institute of Szeged Medical University (for Porcsasz).

PORSZASZ, Janos; PORSZASZ-GIBISZER, Katalin; FOLDEAK, Sandor; MATKOVICS, Bela;
CZOMBOS, Jozsef

Pharmacologic study of tertiary and quaternary aromatic aminoethers
with reference to their effect on the nervous system. Kiserl. orvo-
stud. 16 no.4:348-362 Ag '64.

1. Orvostudományi Egyetem Eleettani Intezete, Szeged, Jozsef Attila
Tudományegyetem Szerreskemiai Intezete, Szeged.

I 9748-66 EWT(1)/EWA(1)/EWA(h)-2 RD/RN

ACC NR: AP6001953

SOURCE CODE: HU/0018/65/017/001/0143/0050

AUTHOR: Porzass, János—Porzass, J., Porzass, Gábor Katalin; Foldeak, Sándor—
Foldeak, S.; Mathovics, Béla—Mathovich, B.

ORG: Institute of Physiology, Institute of Pharmacodynamics, Medical University of
Szeged, Szeged (Szegedi Orvostudományi Egyetem Élettani Intézete, Gyógyszerhatástani
Intézete); Institute of Organic Chemistry, József Attila University, Szeged (József
Attila Tudomány Egyetem Szerveskémiai Intézete)

TITLE: Amiposthins and ethene derivatives having a curare effect

SOURCE: Kísérletes Orvostudomány, v. 17, no. 1, 1965, 43-50

TOPIC TAGS: biochemistry, experiment animal, drug effect, pharmacology

ABSTRACT: It has been shown that 1-piperidino-2-phenyl-ethane (PMP-199) and 1-piperidino-2-phenyl-ethene (PMP-228) have an elective curare-like effect on cats, rabbits, mice and frogs. They have practically no muscarine and nicotine-like effects. The curare-like activity is elicited by depolarization of the motor endplates. This is indicated by the fact that they cause fibrillar spasms and the blocking of the myoneural transmission can not be inhibited by prostigmine. According to the data, curare-like activity is present in such compounds which contain one tertiary N atom in which a phenyl radical is located at 4,6-5 Å distance from it. This ring is definitely needed for the effect since 1-N-piperidino-butane, Card 1/2

1. 974E-66

ACC NR AF6001953

containing on autonomic chain only, shows a nicotine-like effect, that is, affinity mainly for the autonomic ganglionic receptors. Orig. art. has: 4 figures, 4 formulas, and 5 tables. *[JPS]*

SUB CODE: 06 / SUBM DATE: 12Mar64 / OTH REF: 002

PC
2/2

1. 30844-44

ACC NO. 136003351

SOURCE CODE: HU/0018/65/017/002/0195/0196

AUTHOR: Gabor, Miklos; Mathovics, Bela--Mathovich, B.; Gondos, Gyorgy--Gardesh, D. ¹⁸_B

ORG: Obstetrical and Gynecological Clinic, Medical University of Szeged, Szeged (Szegedi Orvostudományi Egyetem Seuleseti és Megyógyászati Klinikája); Institute of Organic Chemistry, József Attila University, Szeged (József Attila Tudományegyetem Szerves Kémiai Intézete)

TITLE: Data on the thin layer chromatography of bioflavonoids

SOURCE: Kiseérletes Orvostudomány, v. 17, no. 2, 1965, 195-196

TOPIC TAGS: chromatography, biochemistry

ABSTRACT: The thin-layer chromatographic determination of hematoxylin, hematein and brasilin is described. The best suited solvent was found to be the upper phase of the butanol-acetic acid-water (4:1:5) system. The spots were fluorescent under an UV light and a 1.5 per cent aqueous uranyl acetate solution was used for their development. Orig. art. has: 1 figure and 1 table. [JPRS]

SUB CODE: 06 / SUBM DATE: 07Mar64 / ORIG REF: 001

MATKOVICS, Jozsef

New trend in developing and manufacturing ~~RLMIX~~ spare parts.
Radiotechnika 10 no.2: F '60

1. Igazgato, RLMIX Radiotechnikai Vallalat.

MATKOVSKAYA, L.F.

Experimental study of indicator media for accelerated bacteriological control of plasma. Genet. i perel. krovi 1:122-124 '65.

(MIRA 18:10)

1. Kiyevskiy institut perelivaniya krovi.

MATKOVSKAYA, N.I.

Pharmacy in the Ukrainian S.S.R. Apt.delo 3 no.2:11-14 Mr-Ap '54.
(MIRA 7:4)

1. Nachal'nik Glavnogo aptechnogo upravleniya Ministerstva zdavookhra-
neniya USSR. (Ukraine--Pharmacy) (Pharmacy--Ukraine)

KOROSTELEV, V.Ye.; KOVALEVA, N.I.; PROKHOROVA, L.N.; MATKOVSKAYA, Ye.K.;
CHERNYSHEVA, N.I.; MATVEYEVA, V.N.; KOSTROMINA, I.N.; SEMINA, N.A.;
TELESHEVSKAYA, E.A.

Study of the reaction-producing qualities of the chemically associated
vaccine of the Gamaleia Institute of Epidemiology and Microbiology
against typhoid fever, paratyphoid fever, and tetanus.. Zhur.
mikrobiol.epid.i immun. 33 no.5:121-122 My '62. (MIRA 15:8)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN
SSSR.

(VACCINES) (TYPHOID FEVER) (PARATYPHOID FEVER) (TETANUS)

~~MATKOVSKIY~~ Aleksandr Leonidovich; SMIRNOV, L.V., otvetstvennyy redaktor;
MADRINSKAYA, A.A., tekhnicheskiy redaktor

[Progressive methods of sinking vertical shafts and new shafting
machinery] Peredovye metody prokhodki vertikal'nykh stvolov i novye
prokhodcheskie agregaty. Moskva, Ugletekhnizdat, 1956. 45 p.
(Shaft sinking) (MLRA 9:12)

МАТКОВСКИЙ, А.Л.

ANDROS, I.P., insh.; ASSONOV, V.A., kand. tekhn. nauk.; BERNISHTEYN, S.A., insh.; BOKIY, B.V., prof.; BROVMAN, Ya.V., insh. BONDARENKO, A.P., insh.; BUCHNEV, V.K., kand. tekhn. nauk; VERESKUNOV, G.P., kand. tekhn. nauk; VOLKOV, A.F., insh.; GULESKUL, M.M., kand. tekhn. nauk; GORODNICHEN, V.M., insh.; JEMENY'YEV, A.Ya., insh.; DOKUCHAYEV, M.M., insh.; DUBNOV, L.V., kand. tekhn. nauk; YEPIFANTSEV, Yu.K., kand. tekhn. nauk; YERASHKO, I.S., insh.; ZHIDANOV, S.A., kand. tekhn. nauk; ZIL'BERBROD, A.F., insh.; ZINGHENKO, M.M., insh.; ZORI, A.S., insh.; KAPLAN, L.B., insh.; KATSAUROV, I.H., dots.; KITAYSKIY, B.Y., insh.; KRAVTSOV, Ya.P., insh.; KRIVOROG, S.A., insh.; KRINITSKIY, L.M., kand. tekhn. nauk; LITVIN, A.Z., insh.; MALOVICH, N.A., kand. tekhn. nauk; MAN'KOVSKIY, G.I., doktor tekhn. nauk; MATKOVSKIY, A.L., insh.; MIKHILI, B.O., kand. tekhn. nauk; NAZAROV, P.P., kand. tekhn. nauk; NASONOV, I.D., kand. tekhn. nauk; NBYENBURG, V.Ye., kand. tekhn. nauk; POKROVSKIY, G.I., prof., doktor tekhn. nauk; PROYAVKIN, N.F., kand. tekhn. nauk; ROZENBAUM, insh.; ROSSI, B.D., kand. tekhn. nauk; SEMEVSKIY, V.M., doktor tekhn. nauk; SKIRKILLO, O.B., insh.; SUKHUT, A.A., insh.; SUKHANOV, A.F., prof., doktor tekhn. nauk; TARANOV, P.Ya., kand. tekhn. nauk; TOKAROVSKIY, D.I., insh.; TRUPAK, N.G., prof., doktor tekhn. nauk; FEDOROV, S.A., prof., doktor tekhn. nauk; FEDIYUKIN, V.A., insh.; KHOKHLOVKIN, D.M., insh.; KHRABROV, N.I., kand. tekhn. nauk; CHIKAREV, V.A., insh.; CHERNAVKIN, N.N., insh.; SHREYBER, B.P., kand. tekhn. nauk; KPOV, B.A., kand. tekhn. nauk; YAKUSHIN, N.P., kand. tekhn. nauk; YANCHUR, A.M., insh.; YAKHONTOV, A.D., insh.; POKROVSKIY, N.M., otvetstvennyy red.; KAPLUN, Ya.G. [deceased], red.; MOVIN, G.I., red.; SAVITSKIY, V.T.,

(Continued on next card)

ANDROS, I.P.---(continued) Card 2.

red.; SANOVICH, P.O., red.; VOLOVICH, M.Z., inzh., red.; GORITSKI",
A.V., inzh., red.; POLUY 'OV, V.A., inzh., red.; PADEYEV, E.I.,
inzh., red.; CHUCHKOV, L.V., red. izd-ra; PROZOROVSKAYA, V.L.,
tekhn. red.; NADBINSKAYA, A.A., tekhn. red.

[Mining; an encyclopaedic handbook] Gornoe delo; entsiklopedicheski
spravochnik, Glav. red. A.M. Terpigorev. Moskva, Gos. nauchno-
tekhnicheskoe izd-vo lit-ry po ugol'noi promyshl. Vol. 3 [Mining
and timbering] Provedenie i kreplenie gornykh vyrobotoz. Red-
kollegiia toma: N.M. Pokrovskii... 1958. 464 p. (MIRA 11:7)

(Mine timbering) (Mining engineering)

MATKOVSKIY, A.L.

Reorganization of the Newcastle Mine in Great Britain. Ugol' Ukr. 5
no.2:40-42 P '61. (MIRA 14:3)

1. Zamestitel' nachal'nika otdela toplivnoy promyshlennosti Gosplana
USSR.
(Great Britain—Coal mines and mining)

MATKOVSKIY, A.N.

FEDOROVA, V.X.; GERNET, D.V.; MATKOVSKIY, A.N.

Improvement of the noncaking ammonium nitrate. Khim.prom. no.5:
296 JI-Ag '54. (MLA 7:11)
(Ammonium nitrate)

MATKOVSKIY, A.N.; SHCHERBAKOV, M.A.; FEDOROVA, V.K.

Operation of sealing machines. Khim.prom. no.5:303 J1-4, '54.
(MIRA 7:11)

(Packing (Mechanical engineering) (Ammonium nitrate))

MATKOVSKIY, A. N.

USSR/Chemistry - Ammonium nitrate

FD-510

Card 1/1 : Pub. 50-9/23

Authors : Fedorova, V. K., Gernet, D. V., and Matkovskiy, A. N.

Title : Improvement of the quality of non-caking ammonium nitrate

Periodical : Khim. prom., 296 (40), Jul/Aug 1954.

Abstract : Report that a chemical combine (name not given) has been using since 1951 the inorganic additive "RAP" (composition not given) to prevent caking of ammonium nitrate. The use of organic additives has been discontinued as potentially dangerous. Ammonium nitrate treated with "RAP" proved satisfactory in agricultural use, including dispersion by seeding machines together with seeds and and dispersion from planes.

Institution :

Submitted :

MATKOVSKIY, A. N.

USSR/Chemistry - Packaging and handling

FD-516

Card 1/1 : Pub. 50-15/23

Authors : Matkovskiy, A. N., Shcherbakov, M. A., and Fedorova, V. K.

Title : Experience in the use of sewing machines to seal bags.

Periodical : Khim. prom., 303 (47), Jul/Aug 1954

Abstract : Describe the use of special sewing machines to seal paper bags in which ammonium nitrate is packed at one of the chemical combines (name not given).

Institution :

Submitted :

Matkovskiy, A. N.
USSR/Chemistry - Miscellaneous

FD-2550

Card 1/1 Pub. 50-15/18

Authors : S.; Zhuravlev, V. V.; Kreysberg, A. Ya.; Matkovskiy, A. N. and
 Starikov, P. Ya; Korbe, G. D.

Title : News items

Periodical : Khim. prom. No 3, 165-170, Apr-May 1955

Abstract : Contains brief items dealing with the results of chemical in-
 dustry operations during the first quarter of 1955, desired
 improvements at farms run by enterprises of the Ministry of
 Chemical Industry, improvement of planning of the chemical in-
 dustry employment of young technical men at chemical enter-
 prises, outstanding work done by individual operators of the
 synthetic ammonia and ammonium nitrate industries, and "social-
 istic competition" in the tire industry.

MATKOVSKIY, A.N.; MOZIRENT'YEV, V.A.; STARIKOV, P.Ya.

Change in the system of drawing off condensate from granulation
towers. Khim.prom. no.8:493 D '55. (MLRA 9:5)
(Ammonium nitrate) (Chemical engineering--Apparatus and supplies)

VLASOVA, K.N.; ANTROPOVA, A.N.; MATKOVSKIY, A.N.; KOSTENKO, M.N.;
ZASLAVSKIY, N.N.; SAMOCHVALOV, A.V.; SOKHOR, F.Z.; NECHESOV, V.A.
[deceased]

Rapid polymerization of caprolactam. Plast. massy no.8:18-19
'64. 1964 17:12

MATKOVSKIY, B. P.

MATKOVSKIY, B. P.: "The development of the concept of a continuum and the elements of the theory of limits in the senior classes of secondary school". Kiev, 1955. Kiev State Pedagogical Inst imeni A. M. Gor'Kiy.
(Dissertation for the Degree of Candidate of Pedagogical Sciences)

SO: Knizhnaya Letopis' No. 51, 10 December 1955

MATKOVSKIY, B.P. [Matkovs'kiy, B.P.].

Basic theorems of the absolute values of numbers in secondary schools.

Nauk. zap. ChDPI 11:123-126 '57.

(MIRA 11:5)

(Numbers, Theory of)

SLYUSAREV, F.M.; MAT'KOVSKIY, E.I.

Diagnostic significance of the permanganate reduction test in
neurological practice. Zhur. nevr. i psikh. 64 no.6:833-836 '64.
(MIRA 17:12)

1. Klinika nevrologii Uzhgorodskogo universiteta i Perechinskaya
rayonnaya bol'nitsa Zakarpatskoy oblasti.

TSAREVSKIY, A.M., kand.tekhn.nauk; MATKOVSKIY, K.A., inzh.; KHRUSTALEV, M.I.,
kand.tekhn.nauk

Hydrocyclone, its use and hydraulic calculations. G.dr. i mel. 17
no.4:12-20 Ap '65. (MIRA 18:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhniki
i melioratsii imeni A.N.Kostyakova (for TSarevskiy, Matkovskiy).
2. TSentral'nyy nauchno-issledovatel'skiy institut transportnogo
stroitel'stva (for Khrustalev).

SHILOV, Ye.A.; SMIRNOV-ZAMKOV, I.V.; MATKOVSKIY, K.I.

Theory of the Kolbe-Schmitt synthesis. Part 1. Role of aryl carbon salts in the mechanism of carboxylation. Ukr.khim.shur.21 no.4:484-490 '55. (MLBA 9:2)

1.Institut organicheskoy khimii AN USSR.
(Kolbe-Schmitt synthesis) (Carboxylation)